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Notes on the Oriental Species of the Coleopterous Family Buprestidae (II)

By

Yoshihiko KUROSAWA

Department of Zoology, National Science Museum, Tokyo

Corrigenda and Addenda on the Names of Japanese *Habroloma*

In 1959, the author made a revision of the Japanese species of the leaf-mining buprestid beetles belonging to the genera *Trachys* FABRICIUS and *Habroloma* C. G. THOMSON. However, some confusions were brought about in that revision, as the author was compelled to determine the names of respective species without comparison with the types scattered in European collections. Examination of those types made during his short trip to Europe in 1973 led him to the realization of such confusions caused by his 1959 work. In the present paper, the author is intending to correct those mistakes.

Habroloma (s. str.) *amurense* (OBENBERGER, 1922)

Trachys (*Habroloma*) *amurensis* OBENBERGER, 1922, Čas. Čs. Spol. Ent., **19**, p. 69.

In 1959, the author suggested that *Habroloma kagosimana* OBENBERGER, 1940, might be the same species as *H. amurensis* OBENBERGER, 1922, described from Vladivostok. His reexamination of the types of *amurense* and *kagosimanum* preserved in the National Museum, Prague (Museum of Natural History), made the author recognize that these two species are radically different and that *H. amurense* is a species belonging to the subgenus *Habroloma* s. str. This error was caused by the insufficiency of the original description and text-figure, which suggest its similarity to some species of the subgenus *Parahabroloma* Y. KUROSAWA than to those of *Habroloma* s. str.

Although the unique type of *amurense* is a specimen from Vladivostok, the author has examined a male from Mt. Sudosan, S. Korea (17–18. vii. 1971, K. YAMAGISHI lgt.) and a female from Karuizawa, Nagano Pref., Japan (7–14. vii. 1959, K. MORIMOTO lgt.). The specimen from Japan is darker than the type and that from Korea.

The host plant is still unknown, but may be presumed to be a kind of *Geranium*.

Habroloma (*Parahabroloma*) *asahinai* Y. KUROSAWA, 1959

Habroloma (*Parahabroloma*) *asahinai* Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 157.

The host plant confirmed by the author himself at Shoshi, Okinawa, in 1964 is

Rubus Sieboldi BLUME.

The author examined three examples of this species from Ishigaki-jima, an island of the Yaéyama Group of the Ryûkyû Archipelago. There is no distinctive difference to separate them from typical *asahinai* of the main island of Okinawa, except for the colour of the body which is brighter and has more strongly aeneous or brassy tinge. The exact collecting data of them are as follows: 3 exs., Mt. Omoto-dake, Ishigaki-jima, 26. iv. 1974, H. IRIE lgt.

Habroloma (Parahabroloma) elegantulum (E. SAUNDERS, 1873)

Trachys elegantula E. SAUNDERS, 1873, J. Linn. Soc. London, Zool., **9**, p. 520.
Trachys elongatula KERREMANS, 1884, Ann. Soc. ent. Belg., **28**, p. 157 (*erratim*).
Trachys (*Habroloma*) *elegantula*: OBENBERGER, 1916, Arch. f. Naturg., **82** (A–11), p. 29.
Trachys (*Habroloma*) *ronino* OBENBERGER, 1916, *l.c.*, **82** (A–11), p. 32. (*Syn. nov.*)
Trachys (*Habroloma*) *suensoni* GEBHARDT, 1928, Col. Centralbl., **3**, p. 102. (*Syn. nov.*)
Trachys (*Habroloma*) *formaneki* OBENBERGER, 1930, Čas. Čs. Spol. Ent., **27**, p. 112. (*Syn. nov.*)
Habroloma elegantula: CHUJÔ & MATSUDA, 1940, Mushi, **13**, p. 66.

Trachys (*Habroloma*) *ronino* OBENBERGER, 1916, is a synonym of *Trachys elegantulum* E. SAUNDERS, 1873. *Habroloma* (*Parahabroloma*) *ronino* Y. KUROSAWA, 1959, is not identical with *elegantulum*, but can be regarded as a species new to science.

The type of *Trachys* (*Habroloma*) *formaneki* OBENBERGER, 1930, from Chin-Kiang, China, preserved in the National Museum, Prague (Museum of Natural History), is perfectly identical with *elegantulum* E. SAUNDERS, 1873. The types of *Trachys* (*Habroloma*) *suensoni* GEBHARDT, 1928, from Hangchow, China, preserved in the Muséum National d'Histoire Naturelle, Paris, and the National Museum, Prague, are identical with some fresh examples of *elegantulum*. The "type" of *Trachys* (*Habroloma*) *atronitida* GEBHARDT, 1928, preserved in the National Museum, Prague, is identical with *Habroloma* (*Parahabroloma*) *kagoshimana* Y. KUROSAWA, 1959 (not OBENBERGER, 1916). Another "type" of the same species preserved in the Muséum National d'Histoire Naturelle, Paris, is nothing but an old specimen of *H. elegantulum* E. SAUNDERS, of which the elytral pubescence is rubbed off.

Habroloma (Parahabroloma) yuasai sp. nov.

Habroloma (*Parahabroloma*) *ronino*: Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 251.

Since *H. ronino* OBENBERGER, 1916, falls in a synonym of *H. elegantulum* E. SAUNDERS, 1873, the species regarded by the present author as *ronino* in 1959 becomes a new species, the detailed description of which was already given in the author's work in 1959.

Holotype and paratopotypes: 3 exs., Mimata, Shimane Pref., Honshû, Japan, 28. viii. 1924, H. YUASA lgt.

Paratypes: 1 ex., Hibara, Fukushima Pref., 18. viii. 1948, Y. KUROSAWA lgt.; 2 exs., Hatsu-shima I., Atami, Shizuoka Pref., 6. vi. 1968, T. MAÉNAMI lgt.; 2 exs.,

Onomichi, Hiroshima Pref., 17. v. 1940, K. OHBAYASHI lgt.; 1 ex., MUYA, Tokushima Pref., 20. v. 1948, M. CHÛJÔ lgt.; 1 ex., Hata, Yahata, Fukuoka Pref., 23. v. 1965, M. UÉDA lgt.; 1 ex., Mt. Wakasugi-yama, Fukuoka Pref., 5. vi. 1932, T. SHIRÔZU lgt.

The species is named in honour of the late Dr. Hiroharu YUASA, who was the famous coleopterist of Japan and is the collector of the holotype.

Habroloma (Parahabroloma) atronitidum (GEBHARDT, 1928)

Trachys (Habroloma) atronitida GEBHARDT, 1928, Col. Centralbl., **3**, p. 98.
Habroloma (Parahabroloma) kagoshimana: Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 250.

Since the species regarded by the author as *kagosimanum* OBENBERGER, 1940 (mis-spelled as *kagoshimana*) is identical with the "type" of *atronitida* GEBHARDT, 1928, preserved in the National Museum, Prague (Museum of Natural History), and since another "type" preserved in the Muséum National d'Histoire Naturelle, Paris, is not identical with the author's *kagoshimana* but identical with some old examples of *elegantulum* E. SAUNDERS, 1873, the author herewith designates the Prague specimen as the lectotype of *H. atronitida* GEBHARDT, 1928. The author's "*kagoshimana*" is, therefore, a synonym of *atronitidum* GEBHARDT, 1928.

Habroloma (Parahabroloma) kagosimanum (OBENBERGER, 1940)

Trachys (Habroloma) kagosimana OBENBERGER, 1940, Čas. Čs. Spol. Ent., **37**, p. 39.
Habroloma (Parahabroloma) shirozui Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 256. (*Syn. nov.*)

The species described by the author in 1959 under the name of *H. shirozui* is a synonym of *Trachys (Habroloma) kagosimanum* OBENBERGER, 1940. The original description by OBENBERGER is so short and incomplete, and the measurement of the body given in the original description is so small (2 1/2 mm), that the author misidentified *kagosimanum* and regarded the smallest species among the Japanese species of this genus as *kagosimanum* OBENBERGER. The detailed examination of the type preserved in the National Museum, Prague, clarified that the species named *shirozui* by the author in 1959 is nothing but *kagosimanum*. The type-specimen of *kagosimanum* actually measures 3 mm, not 2 1/2 mm, while *shirozui* ranges 2.9–3.3 mm.

Habroloma (Parahabroloma) nixillum (OBENBERGER, 1929)

Trachys (Habroloma) nixilla OBENBERGER, 1929, Sbornik Ent. Odd. Nar. Mus. Praze, **7**, p. 67.
Trachys (Habroloma) sinna OBENBERGER, 1937, *l.c.*, **15**, p. 35. (*Syn. nov.*)
Habroloma (Parahabroloma) nixilla: Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 261.

The type of *H. sinna* OBENBERGER, 1937, described from Taikokan, Formosa, is identical with that of *H. nixilla* OBENBERGER, 1929, described from Shinsha, Formosa, both preserved in the National Museum, Prague. The host plant confirmed by the author himself in Central Formosa is *Lagerstroemia* sp. (Lythraceae).

Habroloma (Parahabroloma) griseonigrum chionochaeta (OBENBERGER), comb. nov.

Trachys (Habroloma) chionochaeta OBENBERGER, 1929, Sbornik Ent. Odd. Nar. Mus. Praze, **7**, p. 54.
Trachys (Habroloma) chinochaeta: MIWA & CHÛJÔ, 1936, Cat. Col. Japon., (1), p. 26 (*erratim*).

Habroloma chionochaeta OBENBERGER is the Formosan counterpart of *H. griseonigrum* (E. SAUNDERS, 1873) described from Japan.

Habroloma (Parahabroloma) eximium eupoeta (OBENBERGER), comb. nov.

Trachys (Habroloma) eupoeta OBENBERGER, 1929, Sbornik Ent. Odd. Nar. Mus. Praze, **7**, p. 61.

Habroloma eupoeta is the Formosan counterpart of *H. eximium* (LEWIS, 1893) described from Japan. The specimens captured in Ishigaki-jima, the main island of the Yaéyama Group of the Ryûkyû Archipelago, may be regarded as the same subspecies as the Formosan *eupoeta* OBENBERGER. The specimens examined by the author are: 4 exs., Mt. Omoto-dake, Ishigaki-jima, 16. iii. 1964, S. KIMOTO & Y. MIYATAKE lgt.

The host plant confirmed by Dr. Y. MIYATAKE at Mt. Omoto-dake, Ishigaki-jima, is *Symplocos prunifolia* ZIEB. et ZUCC. (Symplocaceae).

Habroloma (Parahabroloma) liukiuense (OBENBERGER), stat. nov.

Trachys (Habroloma) liukiuensis OBENBERGER, 1940, Čas. Čs. Spol. Ent., **37**, p. 39.
Habroloma (Parahabroloma) eximia liukiuensis: Y. KUROSAWA, 1959, Bull. Natn. Sci. Mus., Tokyo, **4**, p. 265.

This species is doubtlessly the replacement of *eximium* LEWIS, 1893, in the Amami and Okinawa Groups of the Ryûkyû Archipelago. However, the characters separating *liukiuense* from *eximium* are so clear that the author prefers to regard it as a full species.

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Besides the *Habroloma* species mentioned above, the author prefers to correct here some mistakes found in the Japanese species of the genus *Agrilus* CURTIS.

Agrilus asiaticus KERREMANS, 1898

Agrilus asiaticus KERREMANS, 1898, Ann. Soc. ent. Belg., **17**, p. 178.
Agrilus planefasciatus OBENBERGER, 1936, Čas. Čs. Spol. Ent., **33**, p. 115. (*Syn. nov.*)

The type of *Agrilus planefasciatus* OBENBERGER, 1936, preserved in the National Museum, Prague (Museum of Natural History), is perfectly identical with the "type" of *A. asiaticus* KERREMANS, 1898, preserved in the British Museum (Natural History), London, which is a female and labeled as "Mandchourie, Boucard; *asiaticus* Kerr. Type". The range of this species is North China, Manchuria, Ussuri and Korea.

A. planefasciatus igai Y. KUROSAWA, 1963, described from Japan is doubtlessly a subspecies of *A. asiaticus* KERREMANS.

Agrilus asiaticus igai Y. KUROSAWA, stat. nov.

Agrilus planefasciatus igai Y. KUROSAWA, 1963, Bull. Natn. Sci. Mus., Tokyo, **6**, p. 110.

This race is found in western Honshû, Kyûshû and Tsushima. The host plant confirmed by the author himself in Tsushima is *Quercus variabilis* BLUME.

Agrilus tibialis LEWIS, 1893

Agrilus tibialis LEWIS, 1893, J. Linn. Soc. London, Zool., **24**, p. 335.
Agrilus gracilipes LEWIS, 1893, *l.c.*, **24**, p. 335 (*nec* WATERHOUSE, 1889).
Agrilus japonicus KERREMANS, 1898, Ann. Soc. ent. Belg., **17**, p. 178. (*Syn. nov.*)
Agrilus lewisiellus KERREMANS, 1903, in WYTSMAN, Genera Ins., (12), p. 187 (nom. nov. for *gracilipes* LEWIS).

The type of *Agrilus tibialis* LEWIS, 1893, preserved in the British Museum (Natural History), is a female from Lake Junsai-numa, S. Hokkaidô, Japan. The type of *A. gracilipes* LEWIS, 1893, preserved in the same museum, is nothing but a blue form of *tibialis* common in central and western parts of Japan. The colour of this species varies somewhat locally in such manners as aeneous (*tibialis* s. str. in Hokkaidô), brassy green to olivaceous (in S. Hokkaidô and N. Honshû), ferruginous (in Kitakami Mts.), blue (*gracilipes* in C. and W. Honshû, Shikoku, Kyûshû), cyaneous or violaceous blue (in western Japan) and dark blue (in Tsushima). The black form appears in various localities, not geographically. The type of *A. japonicus* KERREMANS, 1898, preserved in the Muséum National d'Histoire Naturelle, Paris, and two "syntypes" preserved in the British Museum (Natural History), London, are identical with the typical form of *tibialis* LEWIS from Hokkaido.

The species illustrated by the author as *A. japonicus* KERREMANS in Iconogr. Ins. Japon., **2**, pl. 76, fig. 23 (1963) is a species quite different from *japonicus* KERREMANS (=*tibialis* LEWIS). It will be described as a new species in a later page.

The continental race of this species from Korea, Manchuria and East Siberia including Ussuri and Amurland is usually ferruginous. The name of this continental race is settled as follows.

Agrilus tibialis corax OBENBERGER, stat. nov.

Agrilus corax OBENBERGER, 1917, Col. Rundschau, **1917**, p. 39.
Agrilus ignoratus OBENBERGER, 1924, Jub. Sbornik Čs. Spol. Ent., p. 44 (*ingnoratus erratim*). (*Syn. nov.*)
Agrilus asiaticus: OBENBERGER, 1924, *l.c.*, p. 44.
Agrilus prinadai FISHER, 1925, Proc. U.S. Natn. Mus., **68**, p. 6. (*Syn. nov.*)
Agrilus freyi THÉRY, 1939, Mitt. Münch. ent. Ges., **29**, p. 153, fig. 3.

The type of *Agrilus corax* OBENBERGER, 1917, described from Kitajskaja Sterana Siberia or., is identical with large female of the continental race of *A. tibialis* LEWIS,

1893, which is common in Japan. The type of *A. ignoratus* OBENBERGER, 1924, has no essential difference from *corax* OBENBERGER, 1917, the continental race of *tibialis* LEWIS. It is difficult to find the specific difference from *corax* OBENBERGER in the original description of *A. prinadai* FISHER, 1925. As OBENBERGER considered the nominate form of this race to be *A. asiaticus* KERREMANS, he named the true *asiaticus* again in 1936 as *planefasciatus*. *Agrilus ignoratus* OBENBERGER, recorded from Kunashir Is., Kurile Islands by G. PRIVOLUTSKAYA in 1973 may be identical with the typical *tibialis* LEWIS from Hokkaidô, Japan.

Agrilus rokuyai sp. nov.

Agrilus japonicus: Y. KUROSAWA, 1963, Iconogr. Ins. Japon., **2**, pl. 76, fig. 23.

Male:— Body slender, somewhat cylindrical; above dark bronzy, with a slight greenish tinge on pronotum, a slight brownish tinge on elytra, and a distinct cupreous tinge on front; body beneath, legs and antennae brighter than above, aeneous, sometimes with a bluish tinge.

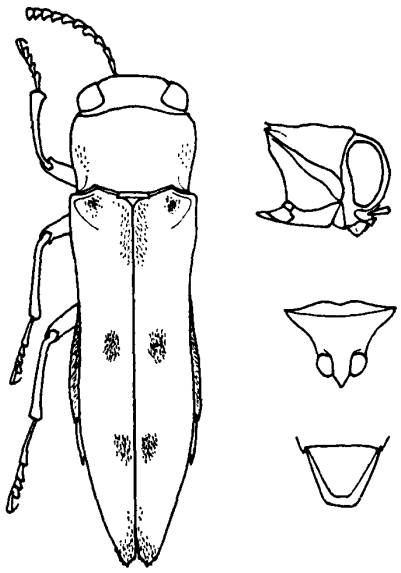

Fig. 1. *Agrilus rokuyai* Y. KUROSAWA, nov.

Head large, slightly narrower than the base of pronotum; vertex longitudinally rugoso-punctate, with the median groove distinctly impressed; frons narrow, longer than wide, constricted anteriorly, feebly convex, densely, coarsely and confluently punctured, and clothed with semirecumbent, inconspicuous, short, greyish hairs; eyes large, with the interior rim strongly sinuate; clypeal suture more or less arcuate or V-shaped; clypeus transverse, more than twice as broad as long between the antennal cavities, with the anterior margin broadly emarginate; antennal cavities large, surrounded posteriorly by strongly elevated carina, and just above each cavity with a pore large and transverse but ill-defined; antennae slender, with the second segment slightly shorter than the third, which is about as long as the fourth and the first.

Pronotum transverse, somewhat ovotrapezoidal, attenuate posteriorly, about 1.4 times as wide as long, and widest just behind the anterior margin; sides feebly sinuate and constricted just before the base, obliquely expanded to the middle, where they are rounded or obsoletely angulate, then subparallel towards the anterior angles, which are produced and obliquely truncate in dorsal aspect, but very sharply produced and abased in lateral aspect; anterior margin bisinuate, with the median lobe broadly but slightly produced; posterior margin bisinuate, with the median lobe broadly but slightly emarginate just before scutellum; posterior angles slightly produced and subrectangular; prehumeral carinae very obsolete, ill-defined, but somewhat traceable from the posterior angle to near the middle and conjunct anteriorly with the marginal carina, which is strongly sinuate, strongly curved anteriorly and straight posteriorly; submarginal carinae somewhat straight, hardly sinuate, widely distant from the marginal carina anteriorly, strongly approximating to it at the middle, then indistinctly connected with it just before the basal angle; disk transversely elevated between the depressions, with the anterior depression transverse, the antescutellar depression very obsolete, and the lateral depressions small and obsolete; surface densely and transversely rugose and clothed with inconspicuous, very short, recumbent, dark-greyish or blackish hairs. Scutellum transversely carinate, with the part before the carina arcuate, and the part behind the carina somewhat T-shaped, with the median projection sharply pointed out.

Elytra slender, about three times as long as wide, about five times as long as pronotum, and widest at humeri; sides rounded at humeri, sinuate to just behind the middle, where they are rounded, then rather straightly and obliquely attenuate to apex, which is separately acute and dentate at the tip, with the exterior side of the dentation obtusely and obsoletely angulate and finely denticulate, and with the interior side of the dentation obliquely and slightly emarginate, conjointly forming a large semicircular emargination between the dentations, with the sutural angles distinctly angulate and slightly dentate; basal margin slightly broader than the base of pronotum, with the basal lobes obtusely angulate; sutural margin slightly elevated in posterior third; lateral margins unarmed except for the part near the apex, where they are finely denticulate; humeri not prominent, without humeral carina; basal depressions large and deep; disk convex, longitudinally depressed just behind scutellum, and rather flattened along the suture; surface finely, densely and uniformly imbricate, clothed with recumbent or semirecumbent, very inconspicuous, short, dark greyish hairs, and ornamented with four spots or markings of semirecumbent, agglomerate, short, yellowish grey hairs arranged on each elytron as follows: the first one in the basal depression; the second one at the centre of anterior two-fifths and longitudinally elongate; the third one near the suture in posterior third; the fourth one not forming a distinct spot at the apex. The sides of the first and second abdominal segments exposed from elytra and clothed in the anterior half with agglomerate brownish or yellow-greyish hairs.

Body beneath clothed with short, semirecumbent, silver-greyish hairs except those

on the prosternal process longer and darker. Prosternum convex; gular lobe bilobed; prosternal process flattened, subconical, with the apex blunt at the tip. Metasternum flattened at the middle. Abdomen beneath finely punctured, but the punctuation on the first segment is denser, coarser and somewhat imbricate; first ventral segment flattened at the middle; last ventral segment slightly bilobed at the apex. Pygidium strongly carinate at the middle, and strongly pointed out at the tip. Posterior coxae constricted at the middle, with the latero-posterior angles subrectangular or slightly obtuse, not produced. Posterior tarsi about as long as the posterior tibiae, with the first segment about as long as the following four segments with their lamellae united. Claws simply cleft.

Female:— Body more robust than in the male, with frons broader, and the hairs of prosternal process shorter, sparser and similar to those on the other parts.

Length: 7.3–7.8 mm; width: 1.7–1.9 mm.

Host plant: Unknown.

Holotype and paratopotypes: 3 ♂♂, Ikada, Hyôgo Pref., 17. vi. 1951, R. MORIMOTO lgt.; allotype (♀) and paratypes: 2 ♂♂, 1 ♀, Kake, Hiroshima Pref., 10. vii. 1970, T. KOSAKA lgt.; paratypes: 1 ♂, 1 ♀, Susobana-kyô, Nagano Pref., 25. vii. 1941, M. ENDÔ lgt.; 1 ♀, Ariake, Nagano Pref., 13. vii. 1931, T. KANO lgt.

Range. Japan (Honshû).

This species including the following subspecies, *mushanus* m., has some similarity to *A. kawarai* m. described from Japan and *A. auropictus* KERREMANS and *A. fromosanus* KERREMANS, both described from Formosa, but differs from all of them in the shape of elytral apex and of the prehumeral carinae of pronotum. It may occur also in China.

Agrilus rokuyai mushanus subsp. nov.

Similar to the Japanese subspecies *r. rokuyai* m., but differs in the colour of the body, which is brighter and has a distinct aeneous or brassy or sometimes aeneocupreous tinge on pronotum and elytra, and in the shape of elytral apex, which is less acute than in *r. rokuyai*, sometimes rather rounded. The body is slightly smaller than in *r. rokuyai*.

Length: 5.6–6.8 mm; width: 1.2–1.5 mm.

Holotype (♂) and paratopotypes: 9 ♂♂, Musha, C. Formosa, 1962; allotype (♀): Hokuzankô, C. Formosa, 3. vii. 1942, M. GOTÔ lgt.

Range. Formosa.